PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference A800.080		ACTION (Form PC1/ISA/220) as well as, who		cation of Transmittal of International Search Report T/ISA/220) as well as, where applicable, item 5					
Internation PCT/US	onal application No. 03/35587	International filing date (day/mon 07 November 2003 (07.11.2003)							
Applican THE UN		AS REPRESENTED BY THE SEC	RETARY (
1	5 334 334 11 33 1	by as some transmitted to the line	arching A	authority and is transmitted to the Sureau.					
This inter	rnational search report consists It is also accompanied	of a total of <u>2</u> sheets. by a copy of each prior art docur	nent cited	in this report.					
1. Basis a.	of the Report With regard to the language, the language in which it was filed, the international search was of	ne international search was carried unless otherwise indicated under th	out on the	basis of the international application in the					
ъ.	the international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)). With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international search was carried out on the basis of the sequence listing:								
	contained in the international application in written form. filed together with the international application in computer readable form.								
H	furnished subsequently to this Authority in written form.								
H	furnished subsequently to this Authority in computer readable form.								
	the statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.								
	the statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.								
2.	Certain claims were found unsearchable (See Box I).								
3 4. With a	Unity of invention is lacking (See Box II)								
	regard to the title,								
Ħ	the text is approved as submitte								
<u> </u>	the text has been established by	this Authority to read as follows:							
5. With r	egard to the abstract,			•					
\boxtimes	the text is approved as submitted by the applicant.								
	the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box III. The applicant may, within one month from the date of mailing of this international search report, submit comments to this								
5. The fig	The figure of the drawings to be published with the abstract is Figure No.								
	as suggested by the applicant.	110.		None of the S					
	because the applicant failed to s	uggest a figure.		None of the figures					
	because this figure better charac								
rm PCT/ISA	A/210 (first sheet) (July 1998)								

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US03/35587

A. CLASSIFICATION OF SUBJECT MATTER IPC(7) : C12N 05/06, 05/10; A01K 67/00, 67/033; C12N 21/00 US CL : 435/355; 800/13, 21							
According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED							
Minimum documentation searched (classification system followed by classification symbols) U.S.: 435/355; 800/13, 21							
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched							
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)							
C. DOCUMENTS CONSIDERED TO BE RELEVANT							
Category *	Citation of document, with indication, where a	Relevant to claim No.					
A	WO 01/66717 A2 (THE UNIVERSITY OF UTAH entire document.	1-48					
A	US2002/0094575 A1 (SUZUKI) 18 July 2002 (18.	1-48					
A	US6,287,863 B1 (HODGSON) 11 September 2001	1-48					
<i>,</i>							
Further documents are listed in the continuation of Box C. See patent family annex.							
* Special categories of cited documents: "T" later document published after the international filing date or private and not in conflict with the application but cited to understate of particular relevance *A" document defining the general state of the art which is not considered to be of particular relevance *T" later document published after the international filing date or private and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the application but cited to understate and not in conflict with the ap							
"E" earlier ap	plication or patent published on or after the international filing date	*X*	document of particular relevance; the considered novel or cannot be considered when the document is taken alone				
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)		"Y"	document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination				
"O" document	referring to an oral disclosure, use, exhibition or other means		being obvious to a person skilled in the				
*P" document published prior to the international filing date but later than the "&" document member of the same patent family priority date claimed							
Date of the actual completion of the international search							
08 April 2004 (08.04.2004) Name and mailing address of the ISA/IIS Authorized Whiter							
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703) 305-3230 Author ded Sficer Valuation Rectoration Telephone No. (571) 272-0532							

Form PCT/ISA/210 (second sheet) (July 1998)

NOTESTO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under Article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the PCT Applicant's Guide, a publication of WIPO.

In these Notes, "Article," "Rule" and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims, description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only.

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Preliminary Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When? Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is-filed, see below.

How? Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.